

Remarks/Arguments

The Final Office Action mailed April 21, 2004 has been received and carefully considered. Claims 1, 3-6, 8-13, 15, and 19-23 are pending in the application. Claims 19 -20 having been indicated to be allowable subject matter.

Claims 1, 3-6, 8-13, 15, and 21-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Satoh et al. (U.S. Patent No. 5,764,620, hereinafter "Satoh") in view of Gotoh et al. (U.S. Patent No.6,052,465, hereinafter "Gotoh"). These rejections are respectfully traversed.

Claims 3 and 4 have been amended to ensure dependency from an uncanceled claim. The specification has been amended to correct minor typographical errors. It is believed that no new matter has been added.

The present invention provides for individualized encoded data associated with respective program data on a recording medium. In particular, the invention provides for the encoded data to be disposed on a specific portion of the recording medium that is distinct from the area in which the program data is stored. In the exemplary embodiment, the recording medium comprises a DVD disk having a Burst Cutting Area (BCA) for storing the individualized encoded data. The BCA is specified to be between a selected inner circumference and a selected outer circumference from the center of the disc (page 4, lines 7-14).

The current DVD specifications do not teach that **multiple BCA areas** may be included on a single disk, or that a BCA may be applied to a dual sided disk, or that each layer or each side a recording medium may have a unique BCA. The present invention recognizes that it is desirable to be able to provide multiple laser-encoded areas on a single disk, in particular, a respective laser-encoded area having selectively distinctive information for each side and/or layer of a recording medium (page 5, lines 7-19). The present invention further recognizes that the laser cutting process used to form the BCA may cause potential defects if more than one BCAs are used on a disk and the different BCAs overlap each other (page 6, lines 1-12).

To overcome the above, the present invention teaches **multiple BCAs that are disposed in non-overlapping areas**. The invention also teaches placing the multiple BCAs in the same location as that currently specified in the DVD specification. The advantage of having the respective BCA for each layer at the same location as currently

specified in the DVD specifications is that no hardware modification is needed for a present DVD player to be able to read the individualized code encoded in the respective BCA area (page 8, lines 11-23).

A recited in independent Claim 1,

said first area and said second area being disposed between the center of the recording medium and an outer circumference, said respective program data being disposed outside the outer circumference, and said first area and said second area occupying non-overlapping positions with respect to each other (emphasis added)

In contrast, Satoh describes a single-sided multi-layered optical disk comprising a plurality of recording layers, where each layer has an identification consisting of SYNC for synchronizing clocks, an address mark (AM), a track address (TA), a sector address (SA) and a recording layer address (LA). "Each track is divided into a plurality of sectors S, each of which has an identification section (referred to as ID<sub>a</sub> for the track 6a and as ID<sub>b</sub> for the track 6b) and a data field DF for storing data." That is, each identification section is part of the track used for storing data. See Col. 3, lines 47 - 59.

That is, the identification section and the data fields of Satoh are both in the pit or data area not in the area between the center of the recording medium and the outer circumference as described in the present application and as admitted by the Examiner. As further admitted by the Examiner, Satoh describes a single-sided medium. Further, Satoh lacks partially removed reflection films as the identifying areas and angularly different positions for the identifying areas.

Gotoh describes a two-sided recording medium. Gotoh notes that the data may be stored on the disk with constant linear velocity (CLV), while the stripes are stored with constant angular velocity (CAV) (col. 22, lines 37- 42). As such an apparatus for playing back the disk must switch between the two rotational control modes (col. 22, lines 37-42). To improve the playback, Gotoh provides for a PCA stripe presence/absence identifier recorded as a pit signal (col. 3, lines 49 - 52). The apparatus switches between the modes in response to the identifier to quickly switch to the correct rotational control mode. That is, Gotoh solves an entirely different problem, namely providing efficient switching between two rotational control modes depending on whether the stripe information is included on the disk, and provides an entirely distinguishable solution, namely, providing an identifier that allows an apparatus to

efficiently select the rotational control mode. There is a guard band between the constant angular velocity (CAV) stripes where the identification information is recorded and the constant linear velocity (CLV) area where data is recorded. The use of a guard band does not put the CAV stripes in an area disposed between the center of the recording medium and an outer circumference.

Gotoh nowhere teaches or suggests the use of multiple BCA areas let alone that multiple BCA area are disposed in non-overlapping areas, wherein each BCA has selectively distinctive information therein for each side and/or layer of a recording medium. In fact, at Col. 27, lines 21 - 48, Gotoh specifically teaches away from multiple BCA areas. A first set of stripes is recorded and then a calculation is made in order to determine are space available for a subsequent set of stripes within the 360° area in order not to overwrite the first set of stripes. That is, there is only one identification area that may have multiples sets of stripes, if and only if, there is room within the 360° of the identification area.

Thus, Gotoh not only does not overcome the deficiencies of Satoh but in fact, teaches away from the present invention.

Independent Claims 6, 15 and 21 - 23 each recite these features. In light of the above remarks, it is respectfully submitted that Claims 1, 6, 15 and 21 - 23 are not anticipated and patentable over the art of record. Claims 3 -5 and 13 depend directly or indirectly from independent Claim 1. Claims 8 - 12 depend directly or indirectly from independent Claim 6. It is, therefore, respectfully submitted that Claims 3 - 5, and 8 -13 are also not anticipated and patentable over the art of record for at least these reasons as well as additional features contained therein.

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at (609) 734-6815, so that a mutually convenient date and time for a telephonic interview may be scheduled.

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No fee is believed due with this response. However, if a fee is due, please charge the fee to Deposit Account 07-0832.

Respectfully submitted,  
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CERTIFICATE OF MAILING

I hereby certify that this amendment is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to the: MAIL STOP AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

July 19, 2004  
Date

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